UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,930	03/30/2004	Zei Fang Hsu	1034127-000002	7926

21839   7590   02/03/2009
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TRAN, JIMMY H

ART UNIT	PAPER NUMBER
2456	

NOTIFICATION DATE	DELIVERY MODE
02/03/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>15 January 2009</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-34</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☐ Claim(s) <u>1-34</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>30 March 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>6/28/2004</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to communication(s) filed on 1/15/2009.

Claims 1-34 have been examined and are pending with this action.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 6/28/2004 is in compliance with the

provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being

considered by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis

for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1.   **Claim(s) 1, 7-8, 12-13, 23-26, and 32-34 is/are rejected under 35 U.S.C. 102(b) as**

being anticipated by Chung (US 5,857,075).

Regarding **claim 1**, Chung discloses a system for communicating data between electronic devices, the system comprising:

at least one transmitter in electrical communication with a sending electronic device, the transmitter having a transmitter data sum accumulator and a transmitter identification generator for creating an identification of a desired receiver from a sum of the incoming data (fig. 4 and fig. 6, col. 8/line 49 - col. 9/line 7; NIC device having a buffer and a special address register indicates the destination address of the receiver); and

at least one receiver in communication with a receiving electronic device, the receiver having a receiver data sum accumulator and a receiver identification generator to decode the identification of the receiver from the sum of the incoming data such that if the identification matches the identification of the receiver the data is transmitted to the receiving electronic device (see Chung; fig. 4 and fig. 6, col. 8/line 49 - col. 9/line 7; NIC device having a buffer and a decoder used with an address comparator to match the destination address of the receiver).

Regarding **claim 7**, Chung discloses a transmitter for transmitting electronic signals from a sending device to a receiving device, the transmitter comprising:

a data sum accumulator and an identification generator in electrical communication with the sending device, the data sum accumulator and the identification generator operative to create an identification of a desired receiver from a sum of the incoming data (see Chung; fig. 4 and fig. 6, col. 8/line 49 - col. 9/line 7; NIC device having a buffer and a special address register indicates the destination address of the receiver).

Regarding **claim 8**, Chung discloses the transmitter further comprising a network protocol generator for converting the data into a network standard protocol (see Chung; col. 7/line 45-col. 8/line 6; encoder convert data in compliance with the IEEE 802.3 standards).

Regarding **claim 12**, Chung discloses the transmitter further comprising an identification for the transmitter (see Chung; col. 8/line 49 - col. 9/line 7; MAC transmitter).

Regarding **claim 13**, Chung discloses the transmitter wherein the identification is automatically generated (see Chung; col. 8/line 49 - col. 9/line 7; transmitter sends its source address when transmitting packets).

Regarding **claim 16**, Chung discloses a receiver for a receiving electronic device, the receiver having identification and configured for reception of electronic signals from a transmitter of a sending device, the receiver comprising:

a data sum accumulator and an identification generator to decode the identification of the receiver from the sum of the incoming data such that if the identification matches the identification of the receiver the data is transmitted to the receiving electronic device (see Chung; fig. 4 and fig. 6, col. 8/line 49-col. 9/line 7; NIC device having a buffer and a decoder used with an address comparator to match the destination address of the receiver).

Regarding **claim 20**, Chung discloses the receiver wherein the identification is automatically

generated by the receiver (see Chung; col. 8/line 49 - col. 9/line 7; MAC receivers contain a

predetermine address).

Regarding **claim 23**, Chung discloses an adaptor for connecting an electronic device to a

computer network, the adaptor comprising:

  a first data buffer in electrical communication with the electronic device (see Chung; fig.

4/item 126; buffer);

  a first data sum accumulator in electrical communication with the electronic device (see

Chung; fig. 4/item 126; the sum of the data is stored in the buffer); and

  a first identification generator in electrical communication with the data sum accumulator

and the computer network (see Chung; fig. 6/item 278; special address register);

  wherein the first data buffer, the first data sum accumulator and the first identification

generator generate a receiver identification from the sum of incoming data (fig. 4 and fig. 6, col.

8/line 49 - col. 9/line 7; NIC device having a buffer and a special address register indicates the

destination address of the receiver); and

  a second data buffer in electrical communication with the computer network (see Chung;

fig. 4/item 126; a second buffer);

  a second data sum accumulator in electrical communication with the computer network

(see Chung; fig. 4/item 126; the sum of the data is stored in the second buffer); and

a second identification generator in electrical communication with the data sum accumulator and the electronic device (see Chung; fig. 6/item 278; a second special address register);

wherein the second data buffer, the second data sum accumulator and the second identification generator generate a receiver identification from the sum of the incoming data (see Chung; fig. 4 and fig. 6, col. 8/line 49 - col. 9/line 7; NIC device having a second buffer and a second special address register indicates the destination address of the receiver).

Regarding **claim 24**, Chung discloses the adaptor further comprising a network protocol generator in electrical communication with the electronic device and the first data buffer, the first data sum accumulator and the second identification generator, the network protocol generator being operative to convert the data signals into a prescribed network standard (see Chung; col. 7/line 45-col. 8/line 6; encoder convert data in compliance with the IEEE 802.3 standards).

Regarding **claim 25**, Chung discloses the adaptor further comprising a computer network MAC layer in electrical communication with the computer network and the first receiver identification generator, the second data buffer and the second data sum accumulator, the computer network MAC layer configured to control the access of the data to the computer network (see Chung; fig. 4/item 122, item 132, col. 7/line 45-col. 8/line 6; MAC units enforces the packet integrity through Ethernet frames).

Regarding **claim 26**, Chung discloses a method for communicating data between electronic

devices, the method comprising the following steps:

at a transmitter of a sending device:

summing the data from the sending device and a receiver identification for

generating an identification of a receiving device (see Chung, fig. 7, col. 9/lines 7-13;

data packets are formed by summing the necessary data frame to form the data packet for

transmission which includes data from the sending device and the destination address of

the receiving device);

at a receiver of a receiving device:

summing the data from the transmitter to determine the identification of the

receiving device (see Chung, fig. 7, col. 9/lines 7-13; data packets are formed by

summing the necessary data frame to form the data packet for transmission which

includes the source address of the sending device and the destination address of the

receiving device); and

comparing the identification of the receiving device with the identification of the

receiver to determine if a match exists (see Chung, fig. 6, col. 8/line 49 - col. 9/line 7;

matching source address with matching special address will permit transmission of

packets).

Regarding **claim 32**, Chung discloses a system for communicating data between electronic

devices, the system comprising:

means for generating an identification of a receiving device at a sending device by summing the incoming data (see Chung; fig. 7, col. 9/lines 7-13; NIC device functionality includes forming data packets by summing the destination address frame to the packet of the sending device); and

means for generating the identification of the receiving device at the receiving device by summing the incoming data (see Chung; fig. 7, col. 9/lines 7-13; NIC device functionality includes forming data packets by summing the destination address farm to the packet of the receiving device).

Regarding **claim 33**, Chung discloses a router for connecting a first and second networks, the router comprising:

a first network protocol generator in electrical communication with the first network (see Chung; col. 7/line 45-col. 8/line 6; encoder convert data in compliance with the IEEE 802.3 standards);

a first data buffer in electrical communication with the first network protocol generator (see Chung; fig. 4/item 126; ENDEC communicates down the path to the buffer);

a first data sum accumulator in electrical communication with the first network protocol generator (see Chung; fig. 4/item 126; the sum of the data is stored in the buffer);

a first identification generator in electrical communication with the data sum accumulator (see Chung; fig. 6/item 278; special address register compares its data with other register which gets its data from the buffer); and

a second network protocol generator in electrical communication with the first identification generator and the second computer network (see Chung; col. 7/line 45-col. 8/line 6; a second encoder convert data in compliance with the IEEE 802.3 standards);

wherein the first data buffer, the first data sum accumulator and the first identification generator generate a receiver identification from the sum of incoming data (see Chung, fig. 7, col. 9/lines 7-13; data packets are formed by summing the necessary data frame to form the data packet for transmission which includes data from the sending device and the destination address of the receiving device); and

a second data buffer in electrical communication with the second network protocol generator (see Chung; fig. 4/item 126; a second ENDEC communicates down the path to the second buffer);

a second data sum accumulator in electrical communication with the second network protocol generator (see Chung; fig. 4/item 126; the sum of the data is stored in the second buffer); and

a second identification generator in electrical communication with the data sum accumulator and the first network protocol generator (see Chung; fig. 6/item 278; a second special address register compares its data with other register which gets its data from the second buffer);

wherein the second data buffer, the second data sum accumulator and the second identification generator generate a receiver identification from the sum of the incoming data (see Chung, fig. 7, col. 9/lines 7-13; second data packets are formed by summing the necessary data

frame to form the second data packet for transmission which includes data from the second

sending device and the destination address of the second receiving device).

Regarding **claim 34**, Chung discloses a method for generating an address of a receiver from a

stream of data and a receiver identification, the method comprising the steps of:

summing the data stream (see Chung, fig. 7, col. 9/lines 7-13; data packets are formed by

summing the necessary data frame to form the data packet for transmission); and

generating the address from the sum of the data and the receiver identification (see

Chung, fig. 7, col. 9/lines 7-13; the data packet for transmission which includes data from the

sending device and the destination address of the receiving device);

wherein the address corresponds to the identification of the receiver (see Chung; fig. 7,

col. 9/lines 7-13; destination address frame represents the desired receiving device).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a person
having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
manner in which the invention was made.

2.   **Claim(s) 2-6, 9-11, and 27-31 is/are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Chung (US 5,857,075) in view of Crowley et al. (US 5,410,599, hereafter

Crowley).

Regarding **claim 2**, Chung discloses the invention substantially, however Chung does not explicitly discloses wherein the transmitter further includes an analog to digital converter to convert analog signals from the sending electronic device into digital data and the receiver further includes a digital to analog converter for converting the data into an analog signal.

Crowley discloses wherein the transmitter further includes an analog to digital converter to convert analog signals from the sending electronic device into digital data and the receiver further includes a digital to analog converter for converting the data into an analog signal (see Crowley, fig. 3, col. 5/lines 23-40; data is converted from analog to digital and converted from digital to analog).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Chung in view of Crowley in order for the transmitter to convert analog to digital signals and the receiver to convert digital to analog signals.

One of ordinary skill in the art would have been motivated because generally to allow for communication with digital system, it is necessary to convert data as suggested by Crowley (see Crowley; col. 1/line 45-col. 2/line3).

Regarding **claim 3**, Chung-Crowley discloses the system wherein the transmitter further includes an encryption unit for encrypting the data and the receiver further includes a decryption unit for decrypting the data (see Crowley; fig. 4, col. 5/lines 41-50; encryption module used to encrypt data while the decryption module used to decrypt data).

Regarding **claim 4**, Chung-Crowley discloses the system wherein the transmitter further includes a compression unit for compressing the data and the receiver further includes a decompression unit for decompressing the data (see Crowley; fig. 3, col. 5/lines 23-40; data is compressed and decompressed).

Regarding **claim 5**, Chung-Crowley discloses the system wherein:

the transmitter further includes an analog to digital converter and an encryption unit to convert analog signals from the sending electronic device into digital data and an encryption unit for encrypting the digital data (see Crowley; fig. 3, col. 5/lines 23-40); and

the receiver further includes a decryption unit for decrypting the digital data and a digital to analog converter for converting the data into an analog signal (see Crowley; fig. 3, col. 5/lines 23-40).

Regarding **claim 6**, Chung-Crowley discloses the system wherein the transmitter further includes a compression unit for compressing the digital data and a the receiver further includes a decompression unit for decompressing the digital data (see Crowley; fig. 3, col. 5/lines 23-40).

Regarding **claim 9**, Chung-Crowley discloses the transmitter further comprising an analog to digital converter for converting the electronic signals from the sending device into digital data (see Crowley; fig. 3, col. 5/lines 23-40; data is converted from analog to digital).

Regarding **claim 10**, Chung-Crowley discloses the transmitter further comprising an encryption unit for encrypting the digital data (see Crowley; fig. 4, col. 5/lines 23-40; digital data is encrypted).

Regarding **claim 11**, Chung-Crowley discloses the transmitter further comprising a compression unit for compressing the digital data (see Crowley; fig. 3, col. 5/lines 23-40; digital data is compressed).

Regarding **claim 17**, Chung-Crowley discloses the receiver comprising a digital to analog converter configured to convert the data to an analog signal (see Crowley; fig. 3, col. 5/lines 23-40; data is converted from digital to analog).

Regarding **claim 18**, Chung-Crowley discloses the receiver further comprising a decryption unit for decrypting the data (see Crowley; fig. 3, col. 5/lines 23-40; data is decrypted).

Regarding **claim 19**, Chung-Crowley discloses the receiver further comprising a decompression unit for decompressing the data (see Crowley; fig. 3, col. 5/lines 23-40; data is decompressed).

Regarding **claim 27**, Chung-Crowley discloses the method further comprising the step of converting the signal of the sending device into a digital data signal (see Crowley; fig. 3, col. 5/lines 23-40; data is converted to a digital signal).

Regarding **claim 28**, Chung-Crowley discloses the method further comprising the step of converting the digital data signal received by the receiver into an analog signal for the receiving device (see Crowley; fig. 3 and fig. 4, col. 5/lines 23-40; converting data signals from digital to analog).

Regarding **claim 29**, Chung-Crowley discloses the method further comprising the steps of compressing the data before generating the identification of the receiving device at the transmitter and decompressing the data after determining the identification at the receiver (see Crowley; fig. 3, col. 5/lines 23-40; data is compressed before entering additional modules and decompressed after existing additional modules).

Regarding **claim 30**, Chung-Crowley discloses the method further comprising the steps of encrypting the data before generating the identification of the receiving device at the transmitter and decrypting the data after determining the identification at the receiver (see Crowley; fig. 3 and fig. 4, col. 5/lines 23-40; data is encrypted before entering additional modules and decompressed after existing additional modules).

Regarding **claim 31**, Chung-Crowley discloses the method further comprising the steps of compressing and encrypting the data before generating the identification of the receiving device at the transmitter and decrypting and decompressing the data after determining the identification at the receiver (see Crowley; fig. 3, col. 5/lines 23-40; compressing and encrypting data is done before entering additional modules before the data is transmitted to the receiving device and

decrypting and decompressing data is done after determining the source address of the receiving device).

3.   **Claim(s) 14-15 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung (US 5,857,075) in view of Ghose et al. (US 7,305,486, hereafter Ghose).**

Regarding **claim 14**, Chung discloses the invention substantially, however, Chung does not explicitly disclose the transmitter wherein the transmitter stops transmitting automatically when data is not present.

Ghose disclose the transmitter wherein the transmitter stops transmitting automatically when data is not present (see Ghose; col. 5/line 20-31; transmission of data stops when the data credit is not present).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Chung in view of Ghose in order to stop transmitting automatically when data is not present.

One of ordinary skill in the art would have been motivated because generally to avoid buffer overflows at the receiver as suggested by Ghose (see Ghose; col. 5/line 20-31).

Regarding **claim 15**, Chung-Ghose discloses the transmitter wherein the transmitter automatically begins transmitting data when data is present (see Ghose; col. 5/line 20-31; when data credits are available, continue to transmit data.).

4.   **Claim(s) 21-22 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung (US 5,857,075) in view of Aaltonen et al. (US 2005/0086334 A1, hereafter Aaltonen).**

Regarding **claim 21**, Chung discloses the invention substantially, however Chung does not explicitly disclose the receiver wherein the receiver turns off when data is not present.

Aaltonen discloses the receiver wherein the receiver turns off when data is not present (see Aaltonen; [0049]; switching off when no data is transmitted).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Chung in view of Aaltonen in order to allow the receiver to turn off when data is not present.

One of ordinary skill in the art would be motivated because generally shutting down an electronic device when no data is present since it allows the ability to save battery power as suggested by Aaltonen.

Regarding **claim 22**, Chung-Aaltonen discloses the receiver wherein the receiver turns on when data is present (see Aaltonen; [0049]; receiver will power up to receiver data packets as necessary).

<u>*Conclusion*</u>

Examiner's note: Examiner has cited particular columns and line numbers and/or paragraphs in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well.

It is respectfully requested from the applicant in preparing responses to fully consider the reference in entirety as potentially teachings all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

For the reason above, claims 1-34 have been rejected and remain pending.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JIMMY H. TRAN whose telephone number is (571) 270-5638. The examiner can normally be reached on 9:00am - 5:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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